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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,723	02/27/2001	Helen Biddiscombe	4661300006	3720

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EXAMINER	
BRUENJES, CHRISTOPHER P	
ART UNIT	PAPER NUMBER
1772	

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/763,723	BIDDISCOMBE, HELEN	
	Examiner	Art Unit	
	Christopher P Bruenjes	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-5,8,9,12,13,15-17,20-27 and 29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-5,8,9,12,13,15-17,20-27 and 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

WITHDRAWN REJECTIONS

1. The 35 U.S.C. 112 rejection of claim 28 of record in the Office Action mailed November 10, 2004, Pages 3-4 Paragraph 4, has been withdrawn due to Applicant's cancellation of the claim in the Paper filed March 10, 2005.

2. The 35 U.S.C. 102 rejections of claims 26-27 as anticipated by Leatherman et al of record in the Office Action mailed November 10, 2004, Pages 4-5 Paragraph 5, have been withdrawn due to Applicant's arguments in the Paper filed March 10, 2005.

3. The 35 U.S.C. 103 rejections of claims 8, 12, and 20 over Leatherman et al of record in the Office Action mailed November 10, 2004, Pages 6-9 Paragraph 6, have been withdrawn due to Applicant's arguments in the Paper filed March 10, 2005.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and

use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 2-5, 8-9, 12-13, 15-17, and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 13, the combination of limitations that the polypropylene based film is voided and that the film has a density of 0.8g/cm3 or more is not supported in the original application as filed. Specifically, in the second paragraph of page 4 the disclosure makes a specific distinction between voided films having a density less than 0.69g/cm3 and films with densities of 0.8g/cm3 or more. That specific distinction suggests to one of ordinary skill in the art that voided films would not have a density of 0.8g/cm3 or more. Further, on page 5 the disclosure teaches that when filler is added to polypropylene to make it voided, the density is less than 0.9g/cm3. Therefore, the originally filed specification would convey to one having ordinary skill in the art that at most the density of the voided film is less than 0.9g/cm3 and that when a

film is claimed having a density of 0.8g/cm3 or more, that film is not considered voided. Thus, the originally filed application fails to reasonably convey to one skilled in the relevant art that the inventors, as the time the application was filed, had possession of the combination of limitations claimed in claim 13.

Claims 2-5, 8-9, 12, 15-17, and 20 are rejected for the same reasons as claim 13.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The 35 U.S.C. 102 rejections of claims 21-25 as anticipated by Leatherman et al are repeated and are rewritten below to include newly added limitations and claim 29.

Claims 21-25 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Leatherman et al (USPN 4,892,779).

Leatherman et al anticipate a multilayer article, such as an in-mold label for labeling of polyolefin containers such as

high density polyethylene containers (col.14, l.19-35). The label is formed from a biaxially oriented polypropylene based voided film formed from at least one layer of polypropylene, which is a polyolefin (col.13, l.4-7 or col.1, l.20-35). Note the limitation "voided" is not specifically defined in the original disclosure and is given the broadest interpretation in light of the specification, which is a film containing voids. Note also that a microporous film is a film containing voids. The biaxially oriented films have shrinkage of greater than 6% in both machine direction and the transverse direction (Table V, col.19). The multilayer article comprises at least one layer of microporous material and at least one layer of nonporous material (col.13, l.45-51). The nonporous material is formed from polypropylene as shown above, which is a polyolefin and heat sealable and is adhered to the high density polyethylene container. The microporous material is formed from ultrahigh molecular weight polypropylene with void creating filler (col.1, l.20-35). In addition to the siliceous filler other filler including organic polymers, which are non-siliceous are employed to form voids (col.3, l.52-64). Note that because claim 21 is written in open claim language the label merely has to include a void creating filler selected from chalk or organic polymers regardless of whether other void-creating fillers are also used.

In this case Leatherman et al teaches two void creating fillers, one that meets the limitations of the claim and another extra siliceous filler. The microporous material is taught to be at least in the multilayered article as at least one layer. In the embodiment in which the microporous material is in more than one layer, the microporous material is the base layer and an intermediate layer, while the nonporous material is at least an outer layer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. The 35 U.S.C. 103 rejections of claims 2-5, 9, 13, and 15-17 over Leatherman et al are repeated and are rewritten below to include newly added limitations.

Claims 2-5, 9, 13, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leatherman et al (USPN 4,892,779).

Leatherman et al teach a multilayer article, such as an in-mold label for labeling of polyolefin containers such as high density polyethylene containers (col.14, l.19-35). The label is formed from a biaxially oriented polypropylene based voided film formed from at least one layer of polypropylene, which is a polyolefin (col.13, l.4-7 or col.1, l.20-35). Note the limitation "voided" is not specifically defined in the original disclosure and is given the broadest interpretation in light of the specification, which is a film containing voids. Note also that a microporous film is a film containing voids. The biaxially oriented films have shrinkage of greater than 6% in both machine direction and the transverse direction (Table V, col.19). The multilayer article comprises at least one layer of microporous material and at least one layer of nonporous

material (col.13, l.45-51). The nonporous material is formed from polypropylene as shown above, which is a polyolefin and heat sealable. The microporous material is formed from ultrahigh molecular weight polypropylene with void containing filler (col.1, l.20-35). The microporous material is taught to be at least in the multilayered article as at least one layer. In the embodiment in which the microporous material is in more than one layer, the microporous material is the base layer and an intermediate layer, while the nonporous material is at least an outer layer.

Leatherman et al fail to teach the film having a density of 0.8 g/cm^3 or more. However, the density of the substantially non-porous material would inherently have a density of 0.9g/cm^3 because it is formed of polypropylene and the microporous material would inherently have a density less than 0.9g/cm^3 when polypropylene is used as the base material. Therefore, the overall density of the film would be determined based on the thickness and quantity of microporous and non-porous layers used in forming the film. Leatherman et al teach that more than one layer of either the non-porous or the microporous are used and the thickness of each layer is not explicitly defined (col.13, l.37-51). One of ordinary skill in the art would have recognized that the thickness and number of each type of layer

used to form an in-mold labeling film would be chosen based on the intended end use of the film as taught by Leatherman et al.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to select the thickness and number of each type of layer used to form the in-mold labeling film of Leatherman et al depending on the intended end results desired of the film, as taught by Leatherman et al. It would have also been obvious to one having ordinary skill in the art at the time the applicant's invention was made that the overall density of the film is dependent on the percentage of microporous material used in forming the film and if more non-porous material is used than microporous material then the film would have a density of $0.8g/cm^3$ or more.

7. Claims 8, 12, 20, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leatherman et al (USPN 4,892,779) in view of Takagi (USPN 5,078,817).

Leatherman et al teach all that is claimed in claims 9, 13, and 21 as shown above, but fail to teach adding a hydrogenated hydrocarbon resin to the base and/or intermediate layers. However, Takagi teaches that hydrogenated hydrocarbon resins are used in the layers of shrinkage labels, in order to enable the

shrinking power of the film to occur uniformly so that deformation of the label does not occur (col.5, l.9-20). One of ordinary skill in the art would have recognized that hydrogenated hydrocarbon resins are added to the layers of labels having shrinkage, in order to uniformly distribute the shrinking power of the film so that deformation of the label does not occur, as taught by Takagi.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to add the hydrogenated hydrocarbon resins of Takagi to the base layer and intermediate layer of Leatherman et al in order to prevent deformation of the label, as taught by Takagi.

ANSWERS TO APPLICANT'S ARGUMENTS

8. Applicant's arguments regarding the 35 U.S.C. 102 rejections of claims 21-25 as anticipated by Leatherman et al have been fully considered but they are not persuasive.

In response to Applicant's argument that Leatherman et al fail to disclose the void-creating filler disposed in the polypropylene homopolymer, Leatherman et al teach that not only a siliceous void-creating filler, but also another void-creating filler is added to the polypropylene film to make it microporous. In particular the other non-siliceous filler used

is selected from ethylenebis(tetrabromophthalimide), octabromodiphenyl oxide, decabromodiphenyl oxide, and ethylenebisdibromonorbornane dicarboximide (col.3, l.52-64), which are taken in the broadest interpretation are organic polymers. The fact that Leatherman et al also includes void-creating filler that is not claimed is not pertinent to the question of patentability because the claim claimed in open language. Therefore, a label containing two void-creating fillers as long as one of them meets the required limitations will teach the claimed invention.

9. Applicant's arguments regarding the 35 U.S.C. 102 rejections of claims 26-27 as anticipated by Leatherman et al have been fully considered but are moot since the rejections have been withdrawn.

10. Applicant's arguments regarding the 35 U.S.C. 103 rejections of claims 2-5, 9, 13, and 15-17 over Leatherman et al have been fully considered but they are not persuasive.

In response to Applicant's argument that the microporous film of Leatherman et al fails to meet the limitation of "voided film" as claimed, contrary to the arguments on pages 10 and 11 of the Paper filed March 10, 2005, the original disclosure does

not provide a specific definition of "voided film". While the claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination. During examination, the claims must be interpreted as broadly as their terms reasonably allow. This means that the words of the claim must be given their plain meaning unless applicant provided a clear definition in the specification. See MPEP 2111.01. In this case, the original disclosure does not provide a specific definition for "voided film" and therefore the term is given its plain meaning, which is a film having voids. Further voids, are defined as an empty space, which does not limit "voided films" to a closed cell matrix of voids. Also, the specification does not define "voided films" as substantially non-porous and therefore substantially non-permeable, as stated on page 11 of the remarks.

In response to Applicant's argument that Leatherman et al fail to explicitly teach that the container is formed of polyethylene and the label is polypropylene. Leatherman teaches that the microporous material is useful for fusion bonding to polyolefins such as polyethylene and polypropylene (col.14, l.19-20), and that the microporous material is useful in in-mold

labeling of polyolefin containers (col.14, l.25-35). Therefore, Leatherman et al implicitly teaches that the labeled container is formed of polyethylene or polypropylene. Leatherman et al further teaches that the microporous material is formed of polypropylene and Leatherman et al does not teach that polypropylene microporous materials can only be applied to polypropylene containers. Therefore, Leatherman et al implicitly teaches that any of the microporous materials are used to form labels on the polyethylene and/or polypropylene containers.

11. Applicant's arguments regarding the 35 U.S.C. 103 rejections of claims 8, 12, and 20 over Leatherman et al have been fully considered but they are moot since the rejections have been withdrawn.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P Bruenjes whose telephone number is 571-272-1489. The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher P Bruenjes
Examiner
Art Unit 1772
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June 2, 2005

S. N. Nolan-Rayford
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